i. a stub retrieval module configured to control said computer to initiate a retrieval of said stub from a server associated with processing of said remote method, said stub used to facilitate remote invocation of said remote method; and

ii. a stub loader module configured to control said computer to, after said stub code is received from said server in response to said stub retrieval module, load said stub into said execution environment, thereby to make the stub available for use in said remote invocation of said remote method.

REMARKS

Claims 1-33 are pending in the application. By this Amendment, Applicants have amended claims 1, 11, 21, 31, 32, and 33 to describe certain aspects related to the present invention.

In the last Office Action, the Examiner rejected claims 1, 4, 11, 14, 21, and 24 under 35 U.S.C. § 102(e) as being anticipated by Hill et al., U.S. Patent No. 5,511,197; rejected claims 31-33 under 35 U.S.C. § 103(a) as being unpatentable over Betz, "Interoperable Objects: Laying the Foundation for Distributed-Object Computing" in view of Hill et al.; rejected claims 3, 7-10, 13, 17-20, 23 and 27-30 as being unpatentable under 35 U.S.C. § 103(a) over Hill et al. in view of Birrell et al., "Network Objects;" and rejected claims 2, 5, 6, 12, 15, 16, 22, 25 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Hill et al. in view of Mitchell et al., "An Overview of the Spring System." Based on the following arguments, Applicants respectfully traverse these rejections.

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Rejections Under 35 U.S.C. § 102(e)

Regarding the section 102(e) rejections of claims 1, 4, 11, 14, 21 and 24, the Examiner has not presented a prima facie case of anticipation. To establish a prima facie case of anticipation, the Examiner must find each material element recited in the patent claim, either explicitly or impliedly, in a single prior art reference. See M.P.E.P. § 706.02. Because Hill et al. does not teach every material element recited in claims 1, 4, 11, 14, 21 and 24, the reference does not anticipate those claims.

Hill et al. teaches a system that implements the function MakeStub that "loads a copy of the stub code for the designated interface," "stores the designated pointer to the interface so that it is accessible to the stub code," "registers the stub code with the messaging system," and "stores the message address to return to the caller." (Hill et al., col. 10, ll. 33-40). In contrast, claims 1, 11, and 21 recite, among other things, "a stub loader configured to . . . load said stub into said execution environment, thereby to make the stub available for use in said remote invocation of said remote method." The Examiner alleged in the last Office Action that Hill et al. retrieves the stub address of a stub object and then loads a copy of the stub. Applicants respectfully disagree. Storing a pointer to a designated stub interface and returning the message address of the stub to the caller is not the same as loading a stub into an execution environment, thereby making the stub available for use in remote invocation of a remote method.

The Examiner further alleged that Hill et al. teaches retrieving stub code from the server in that Hill et al. retrieves the stub address of a stub object and then loads a copy of the stub (see Office Action, page 5, lines 23-25). Applicants respectfully disagree. Hill et al. does not teach retrieving stub code from a server. The message sent by the

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server to the client, as described in col. 7, lines 2-17 of this reference, does not include a stub. Instead, the message includes "a message address of the stub and a class identifier of the proxy" (See Hill et al., col. 7, lines 8-10). The code for stub 302 is loaded at the server, and is not provided to the client. Further, if retrieving the stub address and loading a copy of the stub combine to teach retrieving stub code from the server, then Hill et al. cannot teach "a stub loader configured to . . . load said stub into said execution environment, thereby to make the stub available for use in said remote invocation of said remote method," as recited in independent claims 1, 11 and 21.

Hill et al. also fails to teach a stub that is "received by said stub retriever from said server," as recited in independent claims 1, 11 and 21. In the last office action, the Examiner asserted that claims 1, 11, and 21 require a stub retriever to initiate a retrieval of a stub from a server rather than requiring the client or server to initiate the retrieval. But Hill et al. teaches a process of unpackaging the parameters required in a remote procedure call, whereby upon receiving a message from the server containing a class identifier of the proxy and a stub address, the client loads code to create an instance of the proxy, instantiates the proxy, and stores the stub message address with the proxy. Receiving and storing a stub message address with the proxy by the client is not the same as receiving said stub from said server associated with processing of a remote method.

Because Hill et al. does not teach every element of independent claims 1, 11 and 21, Applicants request that the rejections of these claims under 35 U.S.C. § 102(e) be withdrawn and the claims allowed.

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Claims 4, 14, and 24 depend from claims 1, 11, and 21, respectively. As explained, claims 1, 11, and 21 are distinguishable from Hill et al. Accordingly, claims 4, 14, and 24 are also distinguishable from Hill et al. for at least the same reasons set forth for claims 1, 11, and 21. Further, Applicants submit that the rejection of claims 4, 14, and 24 is improper because the Examiner failed to address the recitations in these claims. Instead, the Examiner merely referred to the rejection of claims 1, 11, and 21 to support the rejection of claims 4, 14, and 24 (see Office Action, page 2, line 17). For example, claim 4 recites, among other things, the "server being configured to process said remote method in response to a processing request," and to "provide a stub in response to a retrieval request from said stub retriever." The Examiner did not address the above recitations. Accordingly, the rejection of these claims are improper. Further, Hill et al. does not teach a stub retriever that provides a retrieval request to a server. Because Hill et al. fails to teach the recitations of claims 4, 14, and 24, Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(e) be withdrawn and the claims allowed.

Rejections Under 35 U.S.C. § 103(a)

Regarding each of the section 103(a) rejections, the Examiner has not established a prima facie case of obviousness. To establish a prima facie case of obviousness, three basic criteria must be met. First, some suggestion or motivation must exist, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, one must have a reasonable expectation of success. Finally, the

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prior art reference (or references when combined) must teach or suggest each of the claim limitations. See M.P.E.P. § 2143. The Examiner failed to establish a prima facie case of obviousness because the cited references alone or in combination fail to teach or suggest all of the claim elements.

Regarding claims 31-33, the Examiner admitted that Betz does not teach, among other things, a stub retrieval module and a stub loader module to load a stub into an execution environment, as recited in these claims (see Office Action, page 3, lines 4-7). Instead, Betz explains complex, object technologies and examines the major object-model designs. The Examiner relied upon the teachings of Hill et al. to teach the above mentioned recitations. As explained above, Hill et al., does not teach or suggest a stub retrieval and loader module as recited in claims 31-33. For example, if retrieving the stub address and loading a copy of the stub, as described by Hill et al. combine to teach retrieving stub code from the server, then Hill et al. cannot teach "a stub loader configured to . . . load said stub into said execution environment, thereby to make the stub available for use in said remote invocation of said remote method. Accordingly, because Betz and Hill et al., alone or in combination, fails to teach or suggest the recitations of claims 31-33, the rejection of these claims under 35 U.S.C. § 103(a) should be withdrawn and the claims allowed.

Claims 3 and 7-10, 13 and 17-20, and 23 and 27-30 depend upon claims 1, 11, and 21, respectively. As explained, claims 1, 11, and 21 are distinguishable from Hill et al. Accordingly, claims 3, 7-10, 13, 17-20, 23, and 27-30 are also distinguishable from Hill et al. for at least the same reasons as claims 1, 11, and 21. Further, Birrell does not teach or suggest the recitations of claims 3, 7-10, 13, 17-20, 23, and 27-30.

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Accordingly, because Hill et al. and Birrell, do not teach or suggest the recitations of 3, 7-10, 13, 17-20, 23, and 27-30, the rejection of these claims under 35 U.S.C. § 103(a) should be withdrawn and the claims allowed.

Further, regarding claim 3, the Examiner did not address all of the recitations of this claim. For example, claim 3 recites, among other things, "said stub retriever being further configured to initiate retrieval of said stub code when the remote method is invoked." The Examiner, on the other hand, merely stated that Birrell et al. teaches remote method invocation control without addressing the stub retrieval recitations of this claim. Accordingly, because the Examiner did not address all of the recitations of claims 3 and Birrell et al. and Hill et al., alone or in combination, fail to teach or suggest the recitations of this claim, Applicants request that the rejection of claim 3 under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

Regarding claim 8, the Examiner did not address the a "remote method reference detector configured to detect whether a remote method reference has been received in said execution environment." Instead, the Examiner merely asserted that "Hill et al. in combination with Birrell et al. teach[es] remote method server identifier" (see Office Action, page 4, lines 5-6). Because the Examiner failed to address every recitation of claim 8, and that Birrell et al. and Hill et al., alone or in combination, fail to teach or suggest the recitations of this claim, Applicants request that the rejection of claim 9 under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

Claims 13 and 18, and 23 and 28 include recitations similar to those of claims 3 and 8, respectively. As explained, claims 3 and 8 are distinguishable from Birrell et al. and Hill et al. Accordingly, claims 13, 18, 23, and 28 are also distinguishable from these

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references for at least the same reasons set forth for claims 3 and 8 and Applicants request that the rejection of these claims under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

Claims 2, 5, and 6, 12, 15, and 16, and 22, 25 and 26 depend upon claims 1, 11, and 21, respectively. As explained, claims 1, 11, and 21 are distinguishable from Hill et al. Accordingly, claims 2, 5, 6, 12, 15, 16, 22, 25 and 26 are also distinguishable from Hill et al. for at least the same reasons as claims 1, 11, and 21. Further, Mitchell does not teach or suggest the recitations of claims 2, 5, 6, 12, 15, 16, 22, 25 and 26. Accordingly, because Hill et al. and Mitchell, do not teach or suggest the recitations of 2, 5, 6, 12, 15, 16, 22, 25 and 26, the rejection of these claims under 35 U.S.C. § 103(a) should be withdrawn and the claims allowed.

In addition to the above arguments, Applicants disagree with the Examiner's position that "claims 1, 11, 21, 31, 32, and 33 do not specify where the stub retriever is located, whether it is on a client, on a server, or on a third party node" (See Office Action, page 6, lines 3-7). For example, claim 1 recites a retrieval and loading subsystem including "a stub retriever configured to initiate a retrieval of said stub from a server." Claim 11 recites "initiating a retrieval of said stub from a server." Claim 21 recites stub retriever code "configured to enable said computer to initiate a retrieval of said stub from a server." And, claims 31-33 each recite a computer that is controlled by a stub retrieval entity (e.g., module or code) "to initiate a retrieval of said stub from a server." Accordingly, it is clear that these claims identify a source of the retrieval of the stub.

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Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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